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**Patent and Trademark Office**

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EXAMINER	
GEEHAN, P. W.	
ART UNIT	PAPER NUMBER
212	21

DATE MAILED: 9/09/83

**This is a communication from the examiner in charge of your application.**

COMMISSIONER OF PATENTS AND TRADEMARKS

☐ This application has been examined ☐ Responsive to communication filed on 1/4, 1/21 + 3/15/82 This action is made final.

A shortened statutory period for response to this action is set to expire 3 month(s), — days from the date of this letter. Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

**Part I**    **~~THE~~ FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:**

1. ☒ Notice of References Cited by Examiner, PTO-892. 2. ☐ Notice re Patent Drawing, PTO-948.  
3. ☐ Notice of Art Cited by Applicant, PTO-1449 4. ☐ Notice of informal Patent Application, Form PTO-152  
5. ☐ Information on How to Effect Drawing Changes, PTO-1474 6. ☐ \_\_\_\_\_

## Part II SUMMARY OF ACTION

1. ☒ Claims 1-10, 14-20, 22, 23, 32, 54, 55, & 86-115 are pending in the application.
- Of the above, claims 89, 91, 92, 97-105, 108-111, 114+115 are withdrawn from consideration.
2. ☒ Claims 11-13, 21, 24-31, 33-53, & 56-85 have been cancelled.
3. ☐ Claims \_\_\_\_\_ are allowed.
4. ☒ Claims 1, 14, 32, 54, 55, 86, 87, 90, 93-96, 106, 107 & 112 are rejected.
5. ☒ Claims 2-10, 15-20, 22, 23, 88 & 113 are objected to.
6. ☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.
7. ☐ This application has been filed with informal drawings which are acceptable for examination purposes until such time as allowable subject matter is indicated.
8. ☐ Allowable subject matter having been indicated, formal drawings are required in response to this Office action.
9. ☐ The corrected or substitute drawings have been received on \_\_\_\_\_. These drawings are ☐ acceptable;  
☐ not acceptable (see explanation).
10. ☐ The ☐ proposed drawing correction and/or the ☐ proposed additional or substitute sheet(s) of drawings, filed on \_\_\_\_\_, has (have) been ☐ approved by the examiner. ☐ disapproved by the examiner (see explanation).
11. ☐ The proposed drawing correction, filed \_\_\_\_\_, has been ☐ approved. ☐ disapproved (see explanation). However, the Patent and Trademark Office no longer makes drawing changes. It is now applicant's responsibility to ensure that the drawings are corrected. Corrections **MUST** be effected in accordance with the instructions set forth on the attached letter "INFORMATION ON HOW TO EFFECT DRAWING CHANGES", PTO-1474.
12. ☐ Acknowledgment is made of the claim for priority under 35 U.S.C. 119. The certified copy has ☐ been received ☐ not been received  
☐ been filed in parent application, serial no. \_\_\_\_\_; filed on \_\_\_\_\_.
13. ☐ Since this application appears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.
14. ☐ Other \_\_\_\_\_

The petition to revive having been granted,  
prosecution on the merits of this case is resumed.

Newly submitted claims 98-105, 109-11 and 115 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: Applicant has already elected without traverse, claims drawn to the subcombination of an inverter circuit classified in Class 363, subclass 131.

Newly added claims 98-105 and 109 are drawn to a previously unclaimed invention--the sub-combination of an inverter with means to disable the inverter upon removal of the load, classified in Class 363, subclass 56.

Newly added claims 110, 111, and 115 are drawn to a previously unclaimed invention of a ballast circuit classified in Class 361, subclass 377.

These inventions are related as subcombinations useable together in a single combination. Likewise the inventions have separate utility with other inventions, as for example, the combination of the selected invention with a permanently connected induction heater.

Because these inventions are distinct for the reasons given above, and have acquired a separate status in the art as shown by their classification, and the search required for one invention is not required

for the other inventions, restriction for examination purposes is proper.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits.

Accordingly, claims 98-105, 109-111, and 115 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP 821.03.

I. Claims 1-10, 14-20, 22, 23, and 32 are directed to an inverter circuit classified in Class 363, subclass 131, elected without traverse in Paper No. 4, and applicant has received an action on such claims.

II. Claims 89, 91, 92, 97, and 114 which applicant has indicated as being readable on the elected invention, are for the combination of an inverter and a lamp when connected thereto, classified in Class 315, subclass 205. Reference is made to Paper No. 2 for the propriety of restricting this subject matter from the elected invention.

Applicant argues that the amendment to the claims are such as to exclude the lamp as a positive element of the claims. The examiner does not agree. Because when the lamp is connected to the inverter, it positively is an element of an inverter-lamp

combination. As to claims 108 and 114, they limit the load of claims 107 and 112 to a lamp.

Accordingly, applicant is required to restrict the claims to the invention previously elected, and thus the claims of Group II are held withdrawn from further consideration by the examiner by the prior election, 37 CFR 1.142(b).

An action on the merits of claims 1-10, 14-20, 22, 23, 32, 54, 55, 86-88, 90, 93-96, 106-108, and 112-113 follows below:

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless

- (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

Claim 32 is rejected under 35 U.S.C. 102(e) as being anticipated by Gurwicz. The claimed "direct electrical connection" (third last line) is provided through either diode of the right side of the bridge rectifier, and through either C1 or C2.

Claims 54, 55, and 90 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Rhoads.

Claims 1, 14, 86, 87, and 106 are rejected under 35 U.S.C. 102(e) as being anticipated by Friend.

Friend discloses in figure 1 a half bridge inverter 11, 46, 14, 48, with output terminals defined by the junction of transistors 14, 48 and ground. A series resonant circuit 16, 18 is connected across the output terminals of the inverter. A further output 62, 64 is connected across capacitor 18. As seen from figure 2, the transistor 14, 48 drive pulses appearing between times t1-t2, t3, t4 are of a higher frequency than wave form d. Thus the claimed recitations read on the reference.

The following is a quotation of 35 U.S.C. 103 which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art

are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 112 is rejected under 35 U.S.C. 103 as being unpatentable over the British reference in view of Stevens.

The claim differs from the British reference by calling for means to connect the load across the capacitor of the LC circuit. But such connection is shown to be old by Stevens, figure 4B, the lamp 11 connected across capacitor 46. To so provide the British reference would not produce any unexpected results.

Claim 112 is rejected under 35 U.S.C. 102(e) as being clearly anticipated by figure 4A of Stevens.

Claims 93-96 are rejected under 35 U.S.C. 103 as being unpatentable over Pintell in view of Stevens.

The claim differs from figure 6 of Pintell by calling for parallel load connecting means across one of the resonant LC elements. In contrast, Pintell connects his load in series with the LC circuit.

But Stevens shows it is old to connect a fluorescent lamp across a resonant capacitor (figs. 4a,

4b). Thus, to provide lamp terminals across Pintell's capacitor 616 would have been a matter of design choice. Nothing unexpected would result.

Claim 107 is rejected under 35 U.S.C. 103 as being unpatentable over Friend as applied to claim 106 above, and further in view of Pintell.

Pintell suggests tuning a resonant circuit by means of a variable inductor 617 (fig. 6a). To so provide Friend would have been obvious.

Claims 2-10, 15-20, 22, 23, 88, and 113 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Figure 1 of the German reference discloses another selectively connected voltage multiplier arrangement. Figure 6 of the Japanese article discloses a charge sweep-out circuit.

Applicant's amendment necessitated the new grounds of rejection. Accordingly, THIS ACTION IS MADE FINAL. See MPEP 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). The practice of automatically extending the shortened statutory period an additional month upon the filing of a timely response to a final rejection has been discontinued by the Office. See 1021 TMOG 35.

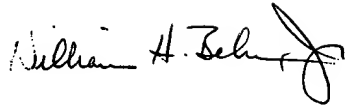
A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS FINAL ACTION IS SET TO EXPIRE THREE MONTHS FROM THE DATE OF THIS ACTION. IN THE EVENT A FIRST RESPONSE IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THIS FINAL ACTION AND THE ADVISORY ACTION IS NOT MAILED UNTIL AFTER THE END OF THE THREE-MONTH SHORTENED STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE ON THE DATE THE ADVISORY ACTION IS MAILED, AND ANY EXTENSION FEE PURSUANT TO 37 CFR 1.136(a) WILL BE CALCULATED FROM THE MAILING DATE OF THE ADVISORY ACTION. IN NO EVENT WILL THE STATUTORY PERIOD FOR RESPONSE EXPIRE LATER THAN SIX MONTHS FROM THE DATE OF THIS FINAL ACTION.

Any inquiry concerning this communication should be directed to William H. Beha, Jr. at telephone number 703-557-5050.

Beha/lg

703-557-5050

9/8/83



WILLIAM H. BEHA, JR.  
EXAMINER  
GROUP ART UNIT 212